

Notice of Allowability

Application No.

10/621,231

Examiner

Sandra M. Nolan-Rayford

Applicant(s)

SMITH ET AL.

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendments dated 16 May and 06 June 2005.
2. ☒ The allowed claim(s) is/are 1-10 and 13-18.
3. ☒ The drawings filed on 15 July 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 20050614.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☒ Other See Continuation Sheet.

S. M. Nolan-Rayford

SANDRA NOLAN RAYFORD 6-14-05
PRIMARY EXAMINER

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with Mr. J. Daniel Lykins (513/583.1965) on 14 June 2005. The application has been amended as follows:

In the Drawings

The cover sheet, entitled "Cover Sheet for TWO Sheets of Drawings", sent with the 15 July 2003 drawings has been cancelled.

In the Specification

Page 1, under "RELATED APPLICATIONS", the first paragraph has been deleted and replaced with the following:

-- This application is a continuation-in-part (CIP) of U.S. SN. 09/951,091, filed September 13, 2001, now U.S. patent 6,652,937. Filed concurrently with this CIP is a second CIP of SN. 09/951,091, which CIP is U.S. SN. 10/621,230, entitled "Low Permeation Nylon Tube with Aluminum Barrier Layer". --

Remarks

The drawing cover sheet has been cancelled. The references to the parent case and the concurrently filed CIP have been updated.

* * *

REASONS FOR ALLOWANCE

3. The following is a statement of reasons for allowing claims 1-10 and 13-18:

4. The base claims, i.e., claims 1 and 18, can be summarized as follows:

Claim 1 covers a fuel transport tube consisting of:

- an inner conductive high density polyethylene (HDPE) tubular structure having inner and outer surfaces,

- an aluminum (Al) barrier layer having inner and outer surfaces and being disposed on the outer surface of the HDPE structure,

- an outer non-conductive polymeric tubular structure having inner and outer surfaces disposed on the outer surface of the Al layer, with the non-conductive tubular structure being a thermoplastic or a rubber selected from the group consisting of: chlorinated polyethylene, chlorosulfonated polyethylene, styrene-butadiene rubber, butadiene-nitrile rubber, nitrile-polyvinyl chloride, EPDM, neoprene, vinyl (ethylene-acrylic rubber), acrylic rubber, epichlorohydrin rubber, copolymers of epichlorohydrin and ethylene oxide, polychloroprene rubber, polyvinyl chloride, ethylene-propylene copolymers, ultra high molecular weight polyethylene, high density polyethylene, chlorobutyl rubber, and blends thereof; and

- a tie layer between at least one of:

- (1) the outer surface of said conductive inner high density polyethylene tubular structure and the inner surface of the Al layer, and

- (2) the outer surface of the Al layer and the inner surface of the non-conductive polymeric structure.

Claim 18 covers a fuel transport tube consisting of:

- an inner conductive HDPE tubular structure containing 2 to 20% carbon as fibers or fibrils, said structure having a thickness of about 0.2 to 1.5 mm;

- a first anhydride-modified linear low density polyethylene (LLDPE) tie layer,

- an Al barrier layer having a thickness of about 0.02 to 1.5 mm;

- a second anhydride-modified LLDPE tie layer, and

- an outer non-conductive HDPE tubular structure with a thickness of about 0.25 to 1.5 mm.

5. The prior art of record fails to teach or suggest fuel transport tubes having all of the features of claim 1 or claim 18.

6. The 35 USC 103 rejection of claims 1-1 and 13-18 based on Kertesz, Sadler and Shida has been withdrawn in view of the amendments and arguments presented in the two amendments submitted after the final rejection.

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7. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication should be addressed to Sandra M. Nolan-Rayford, at telephone number 571/272-1495. She can be reached Monday through Thursday, from 6:30 am to 4:00 pm, ET.

If attempts to reach the examiner are unsuccessful, contact her supervisor, Harold Pyon, at 571/272-1498.

The fax number for patent application documents is 703/872-9306.

S. M. Nolan-Rayford
S. M. Nolan-Rayford 6-14-05
Primary Examiner
Technology Center 1700

10621231(20050614)

**SANDRA NOLAN RAYFORD
PRIMARY EXAMINER**

Cancelled by Examiner's Amendment.

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Christopher W. Smith, et al.
Serial No.: Pending	Date Filed: Herewith
Title of Application:	LOW PERMEATION HIGH DENSITY POLYETHYLENE TUBE WITH ALUMINUM BARRIER LAYER
Attorney Docket No.:	00-20b

**Assistant Commissioner for Patents
Washington, D.C. 20231**

Cover Sheet for TWO Sheets of Drawings